Depression and Political Predispositions: A Bias Against the Right?

Abstract

This paper explores the relationship between depression – the most common mental health problem in our societies – and political predispositions. Drawing on cross-disciplinary research from psychology, psychiatry and political science, the paper uses data from Understanding Society and the European Social Survey to test this relationship with party identification, vote intentions and left-right orientation, and two different measures of self-rated clinical depression and depressive symptoms. Empirical analyses find a modest but significant, common tendency: individuals vulnerable to depression are less likely to identify with mainstream conservative parties, to vote for them and to be on the right side of the political spectrum. Instead, no clear evidence is found that they also identify less with political parties. These findings contribute to our understanding of differences in political predispositions, to the research on health and political behavior, and raise important implications for political engagement.

Keywords: Depression; health; political predispositions; party identification; left-right

Word count: 8,071 (word limit: 8,000)

Introduction

Depression is by this year estimated to produce the second largest disease burden in terms of cost to society (Lecrubier 2001). More than 300 million people are globally affected (WHO 2018), nearly a fifth of adults, according to the UK Office for National Statistics (Guardian 2013). Depression can occur at any point in a person's lifetime and the probability of experiencing subsequent episodes increases with each episode (Kessing 1998; Solomon et al. 2000). It affects multiple domains of psychosocial functioning, interpersonal relationships, occupational and academic functioning, and long-term psychological well being (for an overview, see: Dobson and Dozois 2008b), and people vulnerable to depression exhibit important emotional and cognitive biases (e.g., Beck et al. 1979; Gotlib and Joormann 2010).

A range of psychological and physiological phenomena has recently been linked to ideology and vote choice (for a review see: Hibbing, Smith and Alford 2014) and political scientists have recently called for a greater engagement with health politics (Carpenter 2012). Yet, although scholars have recently included health as an independent variable for explaining mass politics and political behavior (Mattila et al. 2018a), depression as a mental health issue is still an important missing variable in empirical models of political attitudes. Previous work focuses on political participation and largely converges on the finding that bad health decreases the likelihood of voting (Denny and Doyle 2007; Mattila et al. 2013; Pacheco and Fletcher 2015; Couture and Breux 2017; Mattila et al. 2018b; Rapeli et al. 2018; but also see Gollust and Rahn 2015; Sund et al. 2017b), or reduces its initial probability (Ojeda and Pacheco 2017).[1]

[1] In parallel to the literature on health and political engagement develops the research on disability and political participation. This research tends to support the popular finding on

The finding that poor health reduces electoral participation has been extended to mental health, in that people with poor mental health, including depression, exhibit a lower probability of voting (Ojeda 2015; Sund et al. 2017b; Burden et al. 2017; Couture and Breux 2017; Ojeda and Pacheco 2017; Ojeda and Slaughter 2019).

Thus, previous research has identified an important depression-participation gap and has found significant differences between depressed and non-depressed individuals in their levels of political engagement.[2] Bridging research from psychology, psychiatry, and political science, this paper extends previous work to political attitudes and focuses on exploring ideological differences in political predispositions in people vulnerable to depression.[3]

This is important because between 50% and 85% of individuals with depression experience multiple repeated episodes throughout their lifespan (Coyne, Pepper, and Flynn 1999) and a depressive episode can even last for years as some individuals are strongly resistant to anti-depressants (Keller and Boland 1998). Indeed, psychological research suggests that cognitive biases in people with depression endure beyond discrete episodes (Joorman 2009, 301-4) and this point is supported by neuroimaging and histopathologic studies which have found evidence of functional and structural alterations of the brain in individuals with chronic depression (Greden 2001).

---

turnout from health studies, namely, that people with disabilities are less likely to vote (e.g., Schur et al. 2002; Schur and Adya 2013; Reher 2018).

[2] Turnout among people with poor health is about ten percentage points lower than among those with good health (e.g., Mattila et al. 2013). As for depression, a vote recall question is asked in Wave 2 of the UK Household Longitudinal Study showing a 6 percentage points difference between depressed and non-depressed respondents.

[3] To avoid repetition, I use the terms ‘depressed people’, ‘individuals with depression’ and ‘depressives’ interchangeably.

The arguments that I develop in length in the next sections provide connections between depression and political predispositions – namely, party identification, vote choice and left-right orientation – and help put forward mechanisms based on affective/emotional versus expressive/rational links that future research can test. My expectations are tested with data from *Understanding Society*, the UK Household Longitudinal Study (UKHLS), which provides questions for constructing measures of both diagnosed depression and depressive symptoms as well as of party identification and vote choice. Analyses of party identification are replicated for self-rated depressive symptoms on Western Europe with data from the European Social Survey (ESS), which substantiate the UK findings. ESS data are also used for testing the relationship between depressive symptoms and left-right orientation.

My analyses reveal a modest but significant, common tendency: people vulnerable to depression are less likely to identify with mainstream right parties, less likely to vote for them (at least in the UK), and less likely to place themselves on the right side of the ideological spectrum. Additionally, two more findings emerge. First, there is no systematic evidence that people vulnerable to depression identify less with political parties. Second, I test for an alternative mechanism that is not based on ideology but on attitude to change. Unlike a recent research that finds evidence of a status quo bias in depressed people when it comes to political choice in situations of high uncertainty like the Brexit referendum (*identifying reference removed*), in the 'normal' context of a national election ideology still predominates.

This paper makes a number of contributions. First, by including depression in models of political orientations, this study contributes to the wide literature on the differences in citizens' political predispositions. Second, this paper also contributes to the emerging literature on health and political behavior by expanding the research on mental health beyond participation. Third, previous work tended to employ either more "objective" measures of clinical depression or "subjective" measures of depressive symptoms, whereas this study uses both, which is an added value. In the conclusions, I address the limitations of this study,

propose avenues for future research, and discuss the consequences of my findings for political engagement.

Depression and political orientations: Left, right or status quo?

Research on health and ideological orientation, partisanship or party choice is limited and rarely involves mental health. Here I provide an overview of existing research. Two studies from the United States find that individuals affiliating with the Republican Party report lower rates of poor health (Subramanian and Perkins 2009; Pacheco and Fletcher 2015). Similar conclusions were reached in Europe using left-right self-placements (Subramanian et al. 2009) and Japan using a progressive-conservative self-reported scale (Subramanian et al. 2010).

In line with these findings, a study on voting patterns and mortality in England and Wales suggests that people with a better health and who live in better conditions would be less likely to take advantage of social welfare benefits, and so more likely to vote for the party that is the most likely to dismantle the welfare state (Smith and Dorling 1996). This interpretation is supported by a recent study which finds that voting propensity for Labour (Conservatives) increases (decreases) when health deteriorates (improves) (Rapeli et al. 2018).

In the United States, research on disability produces mixed findings. An earlier study on New Mexicans (Gastil 2000) advocates a clear left bias (both in terms of party and self-identification) of people with disabilities, due to liberal values like equality, compassion and tolerance. This view is not much supported by a more recent study based on data from nationally representative surveys (Schur and Adya 2013), which includes mental/emotional disabilities.

At last, a study linking mental illness and party support measured as self-reported vote choice comes from a sample of 110 individuals with chronic mental illness in Germany and finds that the majority of these people stated they voted for a left-wing party in the 2002 federal elections (Bullenkamp and Voges 2004).

Overall, these studies seem to converge on a relationship between poor health and support for or identification with left parties and more liberal orientations. Here I provide arguments for why we could expect a similar tendency in people vulnerable to depression. The first and obvious explanation is that there is a relationship between depression and left-right orientation. It is difficult to test whether people vulnerable to depression are more liberal or liberals are more likely to be depressed, but the relationship is something I can test. This argument is related to ideology and policy – i.e. it is grounded on rationality and self-interest (e.g., Downs 1957; Fiorina 1981) – in that depressives like the redistributive, welfarist angle of the left and identify with or support left parties because they need the public health system, and so prefer a party that would spend more on it.[4] The latter is a reversed version of the voting argument proposed by Smith and Dorling (1996), but also relates to the perception of left parties as "owners" (Budge and Farlie 1983; Petrocik 1996) of the health issue.[5]

There is a second argument that is still relevant but I cannot test because the appropriate questions are not available in the data sets I am employing. This argument has to do with emotions and values and relates to the notion of party identification as a psychological and emotional attachment (e.g., Campbell et al. 1960). According to this argument, depressives would feel closer to left parties because they ascribe to those parties a positive image for

[4] However, people who refuse to get medical support might not necessarily support a stronger healthcare system because of their depression.

[5] Voters' perception of ownership for health and social security as an exclusive prerogative of left-wing parties is found to be massively stable across countries and over time (Seeberg 2016), confirming that such parties enjoy a high reputation for competently handling these issues. This image is also supported by experts' placement of parties' positions (Bakker et al. 2015), where the left-right divide on issues such as redistribution and economic intervention is still considerably clearcut.

protecting the most vulnerable in the society or simply because they share such values themselves. In European democracies, mainstream left parties have historically been and still are perceived as the defenders of the weakest (Eley 2002). A long-term goal of left parties was traditionally the desire to achieve equality and create a society of caring, responsible and intelligent individuals, where altruism and caring are indeed the socially desirable "centre-left qualities of mind" (Nuttall 2006: 127). Being cognitively vulnerable for feeling hopeless and helpless (e.g., Beck et al. 1979; Abramson et al. 1978), people with depression need support and see it in a caring, empathetic and almost maternal left. In this sense depressives would perceive left parties to be more sympathetic and "humanitarianistic" (Feldman and Steenbergen 2001) than other parties with their condition because they ascribe such an image to them.[6] So far, I have provided arguments for a relationship between vulnerability to depression and being on the left or identifying / supporting parties on the left. However, there are two alternative arguments that are worth considering. The first argument suggests that depressives would feel closer to or support conservative parties, or be more conservative. The second argument is not based on ideological differences but instead on attitudes to change.

The first alternative argument builds on the literature from decision-making in depression, which considers risk aversion as a dominant criterion under which depressives take decisions. For instance, portfolio theories posit that depressives take a highly risk-averse strategy to minimize loss, actively attempting to resist change (Leahy 1997, 2001). Similarly, in the personality literature, conservativism is associated with caution and reticence regarding possible change (e.g., Mondak and Halperin 2008). Being highly risk-averse and scared of upheaval – in other words, conservative with a small "c" – it is also reasonable to expect that depressives might feel closer to right "conservative" parties more than to left "progressive"

[6] However, some depressed citizens might reject that kind of self-image or believe that it is not society's task to support them – especially those who were more right-wing to start with.

parties. This might perhaps depend on how heavily depressives weight their position on the redistributive taxes-versus-welfare dimension over the cultural conservative-libertarian dimension, and being left-wing on the former does not prevent them from leaning towards the right on the latter. Put it in terms of personality traits, it is not unrealistic that depressives' personality could be a mix of emotional stability, conscientiousness and openness to experience, each trait applying to different ideological dimensions.

The second alternative argument, still based on the research on decision-making in depression, advances a different mechanism. That is, being highly risk-averse and scared of upheaval depressives would prefer the status quo instead of change (*identifying reference removed*), and so they would identify with the incumbent party. If depressives feel at the mercy of political events rather than in control of them, then it may be that their attitudes are similarly compliant with context. If this is true, I should expect depressives to stick to the current incumbent if that party gets reelected or align with the new status quo – i.e. the new incumbent – after an election.

To sum up, what I can test below is whether there is a relationship between depression and political predispositions, in which direction it goes, and whether it is based on ideological differences or attitudes to change. However, I can also test for another tendency. Given previous evidence for a depression-voting gap, below I argue that there also can be a depression-identification gap.

Depression and party identification: Negative or null effects?

Symptoms of depression (see the Diagnostic and Statistical Manual of Mental Disorders, DSM-5) include fatigue and loss of energy, diminished ability to think or concentrate, feelings of worthlessness or excessive or inappropriate guilt, diminished interest or pleasure in life activities, and feelings of sadness, emptiness and hopelessness. By impairing the motivation and the resources required to participate, depression affects people's life activities

and has implications for their cognitive, emotional and physical involvement into politics.

Research on health and political behavior suggests that depression and, more generally, poor mental health have negative consequences for political participation and finds that turnout tends to decrease among sufferers (Sund et al. 2017b; Burden et al. 2017; Couture and Breux 2017). Research on turnout and depression in young adults reports comparable findings (Ojeda 2015), but also challenges conventional wisdom that the probability of voting uniformly increases across young adulthood (Ojeda and Pacheco 2017). Thus, findings on voting are not surprising if we note that depressed people make decisions that promote their social isolation and withdrawal (Pietromonaco and Rook 1987), exhibit feelings of hopelessness (Abramson et al. 1978), mistrust positive emotions (Paulus and Yu 2012) and show low self-efficacy (Maciejewski et al. 2000).

If depressed people feel helpless and hopeless, tend to be more socially isolated and withdrawal, and their condition significantly impairs their motivation and pleasure to participate in daily life activities, including politics, then, in line with previous studies on turnout and depression, we should expect a negative relationship between depression and party identification (relatedly, see: Papageorgiou, Mattila and Rapeli 2019).

Although this view makes intuitively sense, other research opens to alternative patterns. According to some study, milder depressed process information more systematically and analytically than non-depressed (von Helversen et al. 2011). Research on decision-making in depression shows that people vulnerable to depression take decisions but they do it differently than other people, by under-estimating and under-researching benefits of change due to biases in priors (Huys et al. 2015), by attending to negative over positive material (Gotlib and Joormann 2010), and by suffering losses more than enjoying gains (Leahy et al. 2012).

Taken together, these studies suggest that the relationship between depression and party identification might not necessarily be a negative one. In a sense, depressives' reluctance to participate can be overcome by the wish to regain control of their lives and of the outside

world. This argument finds support in other research on political participation, whereby persons with poor (mental) health engage in less demanding activities, such as signing petitions (Söderlund and Rapeli 2015; Couture and Breux 2017). Hence, if persons with depression relate the notion of external locus of control to politics, then identifying with a party can be a way to channel this desire for change.

To sum up, I can test below whether there are differences in party identification between depressed and non-depressed, i.e. whether there is evidence of a depression-identification gap.

Data and descriptive analyses

To test my theoretical expectations I use data from Wave 1 of *Understanding Society*, the UKHLS,[7] and from Round 7 of the European Social Survey (ESS), a nationally-representative survey of individuals living in European countries. *Understanding Society* is a probability-based panel survey of households with yearly interviews started in 2009 as a continuation of the British Household Panel Survey. Data collection for a single wave is scheduled across 24 months.[8] I apply a weight to adjust for design features of the survey, such as boosts to the ethnic minority and Northern Irish samples (details are provided in Section S2 of the Supplementary Information (SI) memo).

The UKHLS is one of the few surveys including questions on respondents' health conditions

[7] University of Essex. Institute for Social and Economic Research, NatCen Social Research and Kantar Public, [producers]: Understanding Society: Wave 1-6, 2009-2015 [computer file]. 8th Edition. Colchester, Essex: UK Data Service [distributor], November 2016. SN: 6614, http://dx.doi.org/10.5255/UKDA-SN-6614-8.

[8] Additional information about the survey' sample design and data collection is available here: https://www.understandingsociety.ac.uk/d/308/mainstage-waves-1-6-user-guide.pdf?1479807450.

and political attitudes, and provides measures of both diagnosed depression and self-rated depression in combination with questions on party attachment and vote intentions. Wave 1 has the added value to provide interviews taken between 2009 and 2011, allowing for testing both the ideology-based the alternative status quo bias arguments.

Studies on depression and political behavior use different measures of depression. Some research uses more "objective" measures with population-based register data with information on hospital discharge diagnoses and reimbursements for prescribed drugs (Sund et al. 2017a,b). Other work relies on more "subjective" measures based on self-rated questions on respondents' mental health (Ojeda 2015; Ojeda and Pacheco 2017). Psychiatry distinguishes between diagnosis as a trait and level of symptoms as state indicator, and so both measures are relevant. Since *Understanding Society* includes both, I report analyses based on both clinical depression and self-rated depression.

Since a great deal of individuals who suffer from mental illness, including depression, are not fully aware of it or do not fully accept their condition and are reluctant to come out and ask for help (e.g., Corrigan 2005; Dobson and Dozois 2008a), self-rated measures would help reduce social desirability bias in diagnosis. Those suffering from severe depression are less likely to take part in such demanding surveys (Korkainen et al. 2001; Volken 2013) and this makes my analyses a conservative test of the difference between (all) clinical depressed and the rest of the population.

My measure of *clinical depression* (CD) is based on two questions available in the survey's Health and Disability Module. CD includes cases in which the respondent has actually been diagnosed with the condition and currently has it versus cases where the respondent's depression has never been detected by a doctor or a health professional. CD is a binary variable and the questions used to code this variable are reported extensively in Section S1 of the SI memo. Although the likelihood of experiencing subsequent episodes increases with each episode, what matters is that the respondent has the condition at the time of the survey

fieldwork. According to this coding, Wave 1 reports that 5% of respondents are clinically depressed, which is in line with WHO estimates.[9]

My measure of *self-rated depression* (SRD) is based on questions on mental wellbeing captured by the 12-Item Short Form Health Survey (SF-12) (Ware et al. 1996). Although not strictly a depression inventory, this measure is a shorter version of SF-36 and is used to describe a set of clinically relevant health states that encompass the typical effects of depression on quality of life in an actual patient population (Sugar et al. 1998). Detailed questions are provided in Section S1 of the SI memo. Questions contain five categories which have been recoded into an index that goes theoretically from 6 to 30, where lower values denote poor mental health. In the multivariate analyses, SRD was reversed for an easier comparison with CD. The correlation between CD and SRD is 0.4 and is statistically significant at $p < 0.01$.

My political measures are taken from the UKHLS Politics Module. For comparative purposes, in the descriptive analysis I separate whether a respondent identifies or not with a party and which party they feel closer to (I explain in the Multivariate Analyses section of the paper how I coded the dependent variables for the regression analyses). The former is coded 1 if respondents feel closer to a party and zero otherwise. To measure identification with a specific party, I rely on a follow-up question. Those who replied positively to either of the previous questions were asked to name which party they feel closer to. To measure vote intentions, I rely on the subsample of respondents who replied that did not feel closer to any party and were subsequently asked if they would support a specific party if there were to be a general election tomorrow. Descriptive statistics are reported in Table S1.

In addition to the UKHLS, I use data from the ESS for two reasons. The UKHLS does not

[9] Note that after Wave 1 the number of clinically depressed falls vertiginously due to attrition rate, and this is another reason for using data from Wave 1.

include a measure for respondents' ideological orientation and allows me to replicate the UK-based findings on party attachment on all Western European countries.[10] To measure ideological orientation, I rely on the classic 0-10 Left-Right self-placement scale. ESS does not include questions on diagnosed depression, but it does provide a depression inventory for population sample based on the Center for Epidemiologic Studies Depression Scale (CES-D8) (Radloff 1977). This is a battery of eight questions about mental wellbeing that are similar to the ones available in the UKHLS, and so they can be used to construct a comparable measure of SRD (full detail of the questions is provided in Section S1 of the SI memo). Originally scored between 8 and 32, the measure is rescaled to ease interpretation to range between 0 and 24, with higher values meaning higher depressive symptoms. Unfortunately, questions on party identification and party support are not constructed in the same way as in the British panel survey. That is, no follow-up question on vote intentions is available and, for this reason, analyses can only be replicated for party identification. Summary statistics are reported in Table S6.

Initial patterns

I first consider the association between depression and identification with a political party in Table 1. The left side of the table reports percentage values of depressed and non-depressed based on CD. For comparative purposes with CD, I recoded SRD in three categories and reported percentage values of the extreme categories in the right side of Table 1.[11] By looking

[10] Countries included in this analysis below are Austria, Belgium, Britain, Denmark, Finland, France, Germany, Ireland, the Netherlands, Norway Portugal, Spain, and Sweden.

[11] In the recoded SRD variable, category 1 takes values from 6 to 15, category 2 values from 16 to 20 and category 3 values from 21 to 30. In Table 1 only the first and third categories are shown.

at CD we see that depressed are about 5 percentage points less likely to identify with a political party than non-depressed – 46% of depressed compared to 51% of non-depressed. This difference is confirmed by SRD with almost exactly the same proportions. This straightforward test gives a first hint that depressed identify with a party but less than non-depressed.

Table 1: Depressed identify with a party less than non depressed (UKHLS)

	Clinical depression		**Self-rated depression**	
	Depressed %	Non-depressed %	Depressed %	Non-depressed %
Yes	46	51	45	51
No	54	49	55	49
N	*2083*	*43769*	*2642*	*39179*
Chi2's p	0.000		0.000	

Next, the first two columns of Table 2 report percentage values for CD with the full sample and aim to address the theoretical arguments based on the left-right divide. Compared to non-depressed, depressed are 10 percentage points less likely to feel closer to the Conservative Party and 4 percentage points more likely to feel closer to the Labour Party. This difference is even more astonishing when looking at SRD, where depressives are 15 percentage points more likely to feel closer to Labour.

The possibility that depressives would behave not by following ideological divisions but by aligning to the status quo is tested in the remaining columns of Table 2. Wave 1 allows for this test because interviews are spread between 2009 and 2011, and so I divided the sample by using the date of the 2010 British general elections (May 6) as my cut-off point. If the follow-the-status-quo argument holds, we should see a higher percentage of depressives feeling closer to Labour in the pre-election sample that shifts in favor of Conservatives (the new

incumbent) in the post-election sample. This actually happens neither with CD nor with SRD, where depressed tend to lean towards Labour and non-depressed towards Tories in both periods. (Descriptive analyses of vote choice produce similar results and so are reported in Table S2 of the SI memo.) Since no support is found for this alternative argument already in the descriptive analysis, below I focus on the first two results and present analyses that control for additional confounding factors.[12]

Table 2: Depressed identify more (less) with Labour (Conservatives) compared to non-depressed (UKHLS)

	Clinical depression						**Self-rated depression**					
	Full sample		Pre-2010 election		Post-2010 election		Full sample		Pre-2010 election		Post-2010 election	
	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %	Yes %	No %
Conservatives	28	38	28	38	32	41	29	40	27	39	32	42
Labour	44	40	48	42	45	41	55	40	55	41	54	39
Others	28	22	24	20	23	18	16	20	18	20	14	19
N	*914*	*21232*	*540*	*13231*	*322*	*7240*	*1077*	*18557*	*684*	*11962*	*390*	*6576*
Chi2's p	0.000		0.000		0.011		0.000		0.000		0.000	

The relationship between depressive symptoms and Left-Right orientation is tested with ESS data which report a negative and statistically significant correlation at $p < 0.001$ ($r = -0.09$). Although the correlation is quite weak, we can say that there is a modest but systematic

[12] Note that controlling for additional confounders in a regression model confirms the rejection of the new status quo alignment hypothesis and this is why only multivariate analyses for the other hypotheses are presented in the paper.

tendency for people with depressive symptoms to be left-wing, which is in line with the above patterns for party identification in Table 2.

Multivariate analyses with UKHLS data

I specify a multinomial logistic regression model to evaluate whether there is a relationship between depression and party identification. The dependent variable in the model is a categorical variable coded zero for non-identifiers, 1 for respondents who feel closer to the Conservative Party, and 2 for those who feel closer to the Labour Party. (In the model for party choice, I estimate a logistic regression, where party support is coded 1 for Labour and 0 for Tories.) The main independent variables are CD and SRD. I recall that CD is a dummy variable capturing the presence of diagnosed depression, whereas SRD is a continuous variable recoded and reversed from 0 to 24 so that positive values mean higher depressive symptoms. The model includes country dummies for England, Wales, Scotland and Northern Ireland.

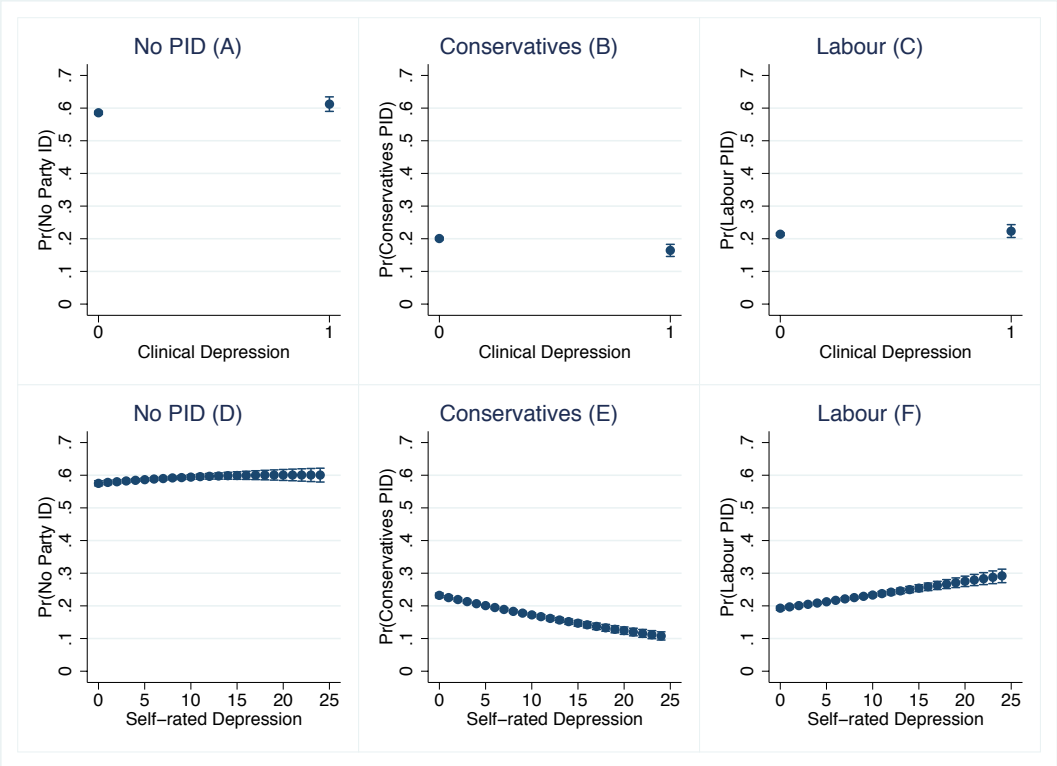
In line with previous research, I estimate the model while controlling for a series of socio-demographic factors available in the survey: sex, age, age squared, education, income and marital status. The operationalization and summary statistics of all control variables is reported in the SI memo (Section 3 and Table S1). These variables are included in case of spurious correlation between depression and political predispositions. Also, while some are considered as risk factors for depression, others like education are likely to be posterior to depression but influence political predispositions, which makes the inclusion of such controls a more conservative test of a depression effect. The causes of depression are quite idiosyncratic, partly genetic, and not very political. This means that even if an important predictor of depression is not included, it is probably not closely associated with partisanship or vote choice – and vice versa. As outlined in the theory section, there is the possibility that some personality traits such as conscientiousness and openness to experience which are

linked to ideology and partisanship might also be associated with depression. Unfortunately, such questions are not available in Wave 1 preventing the opportunity to control for these factors. However, as discussed above, it is likely that depression cross-cuts these personality traits, including neuroticism which is likely to be closely related to depression but which tends not to be one of more politically relevant traits.

Results from the multinomial logistic regressions are reported in Table S3, with no party identification being the baseline category. The negative and significant coefficient on the "identification with Conservative Party" category and the positive and significant (only for SRD) coefficient on the "identification with Labour Party" category support previous descriptive evidence. In Figure 1, I report the predicted probability of the depression variables on each of the categories of the dependent variable, holding other variables at their means, except for categorical variables hold at their mode.

Figure 1 consists of two sets of panels. The upper panels plot the predicted probabilities from CD, while the lower panels show the predicted probabilities from SRD, with 95% confidence intervals. Panels A and D show the predicted probability to not identify with any party depending on the depression measurement. The negative effect previously detected reduces considerably (and basically dissipates with SRD) when controlling for other factors. Moreover, depressed have a lower probability than non-depressed to feel closer to the Conservative Party (panels B and E) and a higher probability than non-depressed to feel closer to the Labour Party (panels C and F), which supports previous descriptive evidence. The effects are not negligible, though the percentage difference is smaller in CD (about 4% for Conservatives and 1% for Labour, respectively) compared to SRD (about 12% for Conservatives and 10% for Labour).

Figure 1: Depression and party identification (UKHLS)



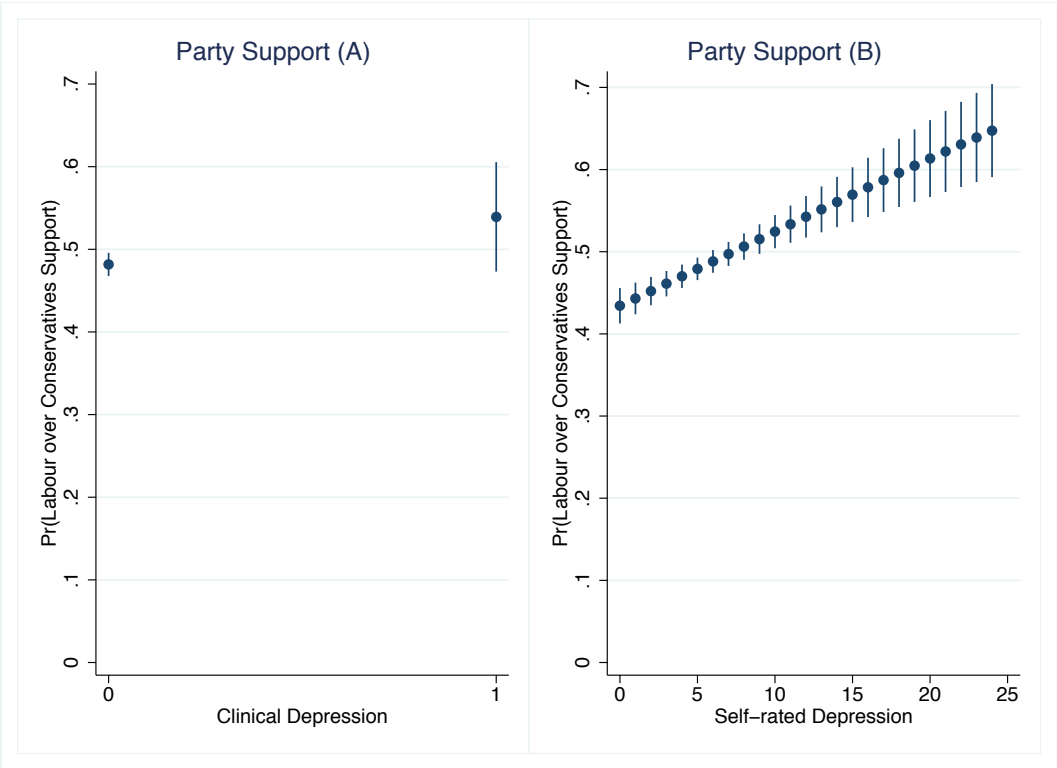
Note: Plots are based on the models in Table S3. Sticks are 95 percent confidence intervals.

Although CD and SRD are both imperfect measures of the same concept, a possible reason that accounts for larger effects with SRD has to do with the possibility that CD respondents might be more likely than SRD respondents to be receiving treatment. If this was the case, it would be reasonable to expect a larger depression effect among people who exhibit depressive symptoms but who are not under treatment. A simple calculation based on the categories of SRD used for Table 1 reveals that only 36% of people with high depressive symptoms were diagnosed with depression while the others report no diagnosis. This is quite telling and might have something to do with why the correlation found between CD and SRD is healthy but not extremely strong. However, it is hard to disentangle how many respondents were actually diagnosed with depression but did not answer accordingly because of social desirability and how many were not diagnosed because of stigma or some kind of inequality.

To test whether there is a relationship between depression and vote choice I rely on those respondents who replied that did not feel closer to any party and were subsequently asked if

they would support a specific party if there were to be a general election tomorrow. These analyses (available in Table S4) largely confirm the analyses for party identification and show a positive coefficient on the depression variables (although not significant for CD). Predicted probabilities are plotted in Figure 2.

Figure 2: Depression and party support (UKHLS)

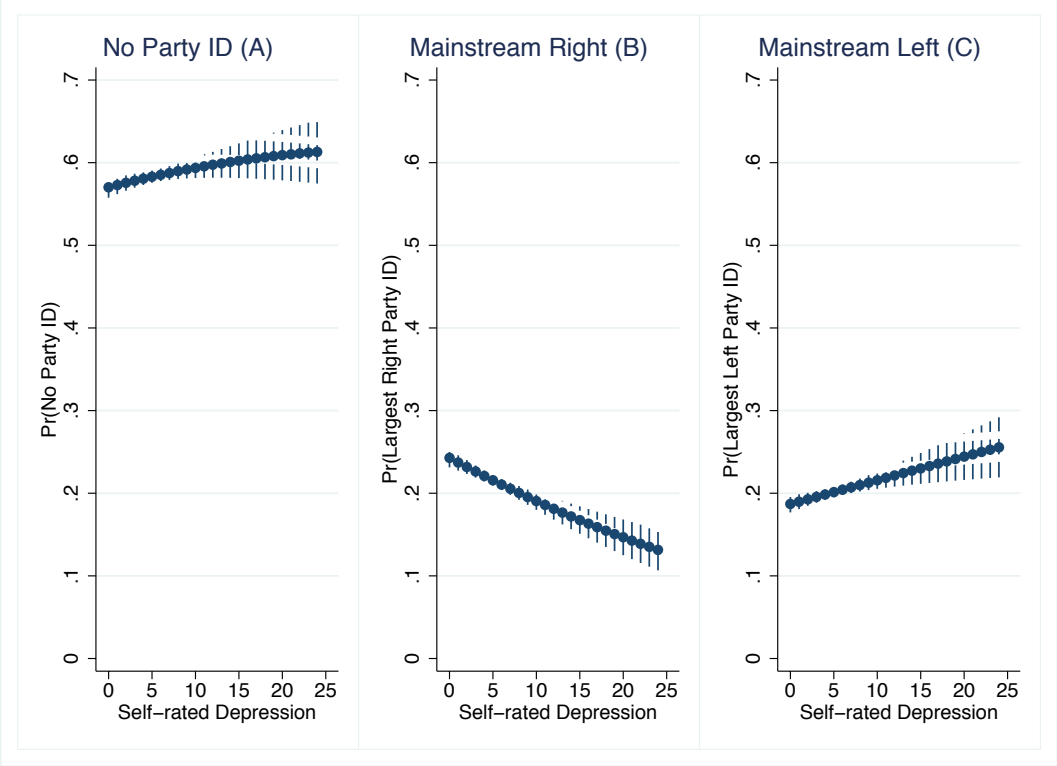


Note: Plots are based on the models in Table S4. Sticks are 95 percent confidence intervals.

*Multivariate analyses with ESS data*I now move to the results from ESS data. Figure 3 displays the predicted probabilities from a multinomial logistic regression of SRD on each category of the dependent variable with 95% confidence intervals. Like for the previous models, controls and country dummies are included and weights are applied following the

ESS advice (analyses reported in Table S7).[13] Panel A shows the predicted probability to not identify with any party, panel B to identify with the largest mainstream right party, and panel C to identify with the largest mainstream left party (parties are listed in Table S5). These analyses tend to substantiate previous results from the British case in that the probability to not identify with a party slightly increases when depressive symptoms increase but the slope and confidence intervals do not allow to make much of it. Further, depressed are more likely to feel closer to mainstream left parties and less likely to identify with mainstream right parties.

Figure 3: Depressive symptoms and party identification in Western Europe (ESS)

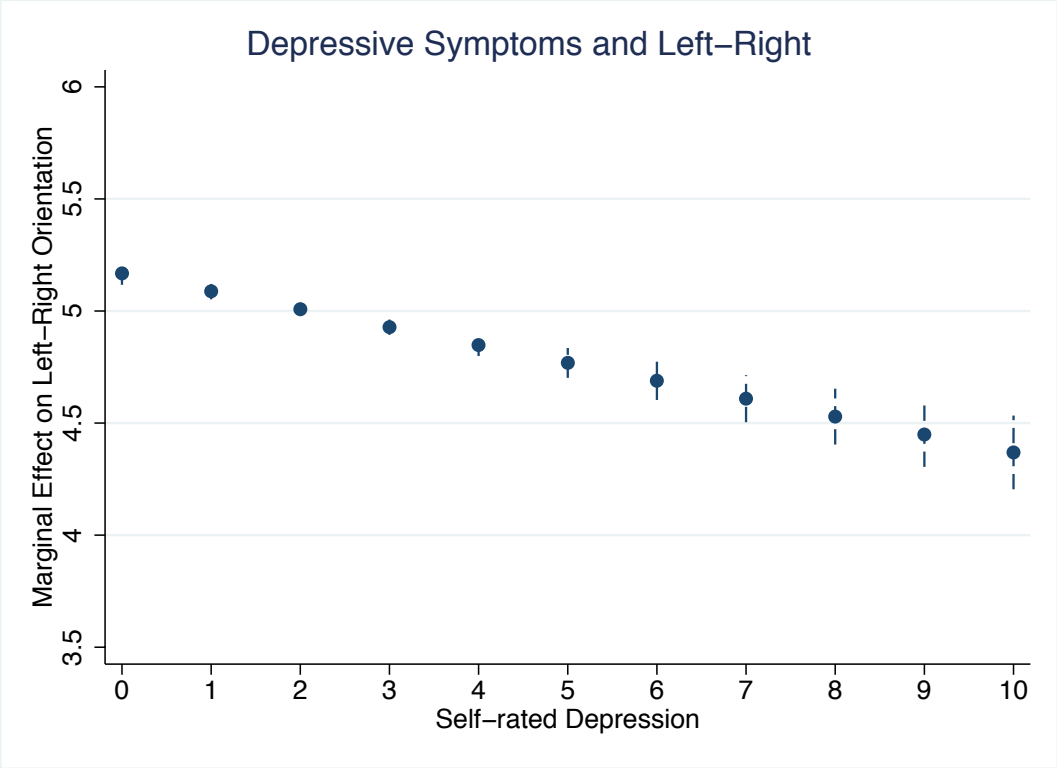


[13] For cross-sectional analyses, ESS survey designers recommend the usage of a population size weight in combination with a post-stratification weight. For details see Section S2 in the SI memo.

Note: Plots are based on the models in Table S7. Sticks are 95 percent confidence intervals.

Finally, Figure 4 plots the marginal effects of the OLS regression model with the left-right self-placement as the dependent variable, with weights, controls and country dummies. For this analysis, I rescaled SRD from 0 to 10 (mean 2.11 and standard deviation 1.62) to match the left-right scale. The coefficient on the SRD variable is -0.08 ($p < 0.001$), meaning that a one-unit shift in SRD is associated with almost a 0.1 change in the left-right scale (analysis reported in Table S8). This effect is meaningful as a two-standard deviation change in SRD shifts a person's predicted left-right self-placement by about one third of a unit on the left-right scale.

Figure 4: Depression and left-right orientation in Western Europe (ESS)



Note: The plot is based on the model in Table S8. Sticks are 95 percent confidence intervals.

Conclusion and discussion

The prevalence of depression and depressive symptoms in our societies is well known. Psychological research has found several differences in cognitive and emotional processes of people vulnerable to depression and its symptoms have important implications for motivation and resource to participate in daily life activities. Political scientists have identified a further important difference known as depression-voting gap. This paper extends previous research and explores differences in political predispositions, namely, party attachment, party support and left-right orientation.

Evidence from survey data from *Understanding Society* and the ESS suggests a moderate but systematic tendency: people vulnerable to depression are less likely to identify with mainstream right parties and to support them and are less likely to place themselves in the right side of the ideological spectrum. This is especially the case with depressive symptoms for which effects are larger than with diagnosed depression. On the other hand, there is no systematic evidence of a depression-identification gap or that depressives' partisanship (and vote intentions) is driven by attitudes to change rather than ideological orientations. This is interesting because *identifying reference removed*'s analyses of attitudes in the UK Brexit referendum find evidence of a status quo bias in clinically depressed people when risk is high and partisan evaluations do not primarily shape decision-making. This does not seem to be the case in the context of general elections.

This paper has several limitations that future research needs to address. First, the use of survey data and available measures of depression carry along a number of biases including non-response and social desirability, as discussed above. However, the fact that the analyses reported in the paper find evidence of a relationship between depression and political predispositions, I believe that the real world connection may actually be stronger, because of our poor measurement of depression.

Second, if there is a bias against the right as the paper suggests, we need to unpack left-right to be able to say something about the nature of this bias. In which dimensions depressives are

more liberal? In addition, we need to establish the origin of this bias, i.e. whether this is due to an affective/loyalty link or to a more rational link, whereby depressives would feel closer to and support parties they share their ideology and policy preferences with. My findings can only give a hint. The fact that depressed are not much more likely to identify with a party than non-depressed is already perhaps a clue about how they see party support, that is, less as an emotional crutch – because in that case we would expect them to be more likely to be identifiers – and perhaps more of a rational support for a party sharing their ideology/policy preferences.

Third, the lack of a clear evidence for a depression-identification gap does not tell us much about the causal relationship between depression and party identification. Future research needs to explore the stability and change of party attachments in depression, including its cycle into the picture. Papageorgiou et al. (2019) have started doing this with general health and we need to extend this avenue to mental health. Party identification tends to develop in adolescence with the family being an incredibly important factor (e.g., Jennings and Niemi 2014). Thus, it may be that depression in adolescence, when political attitudes are not yet fully crystallized, influences party identification differently than depression in adulthood, after party attachments have been formed.

Finally, I want to conclude with some thoughts about the implications of my findings for political engagement. If there is a depression-voting gap but not much of a depression-identification gap and a bias against the right, parties – especially the ones on the left – need to make an effort to mobilize those voters with depression who identify with them but who would not necessarily turnout because of their cognitive and physical impairments. In addition, while studies have found significant depression effects on abstention, they are not huge effects: namely, some depressed people *do* vote, so it is worth seeking their support anyway. However, given that the bias against the right is not huge, the challenge is open.

The UK is an insightful case in this regard. The fact that the promoters of the mental health

reform in Britain have been the Coalition government and, subsequently, the Conservative Party (perhaps simply because they were the ones in charge) cannot leave the Labour Party indifferent. It is hard to say whether the British Conservatives' activity in government is an attempt to steal the mental health issue from the Labour's hands, or at least their reputation to competently handling the issue (Petrocik 1996). In the 2010 case analyzed this seemed not to be the case. Yet it is hard to say whether this was due to different levels of issue attention – the 2010 Conservative Party manifesto (Conservative Party 2010) does not mention depression or support for people with mental health issues at all (except in reference to veterans), while the Labour Party manifesto (Labour Party 2010) does mention support for late-life depression and mental illness more broadly – or to a more systematic left bias. In 2015 and, subsequently, in 2017, the Tories caught up with Labour and mental health became an important issue in their manifestos, to the extent that the Conservative Party pledged to reform the Mental Health Act (Conservative Party 2017). Whether mental health has become a valence issue or not, agenda-setting needs to translate into policy-making to promote anti-stigma policies that incentivize political engagement of people with poor mental health.

References

Abramson, L.Y., Seligman, M.E.P., and Teasdale, J.D. (1978). Learned Helplessness in Humans: Critique and Reformulation. Journal of Abnormal Psychology 87(1): 49–74.

Bakker, R., Edwards, E., Hooghe, L. et al. (2015). 2014 Chapel Hill Expert Survey. Version 2015.1. Available on chesdata.eu. Chapel Hill, NC: University of North Carolina, Chapel Hill.

Beck, A.T., Rush, A.J., Shaw, B.F. et al. (1979). Cognitive therapy of depression. New York, NY: Guilford Press.

Budge, I. and Farlie, D.J. (1983). Explaining and Predicting Elections: Issue Effects and Party Strategies in Twenty-three Democracies. London: Allen and Unwin.

Bullenkamp, J. and Voges, B. (2004). Voting Preferences of Outpatients with Chronic Mental

Illness in Germany. Psychiatric Services 55(12): 1440–1442.

Burden, B.C., Fletcher, J.M., Herd, P. et al. (2017). How different forms of health matter to political participation. The Journal of Politics 79(1): 166–178.

Campbell, A., Converse, P.E., Miller, W.E. et al. (1960). The American Voter. New York: Wiley.

Carpenter, D. (2012). Is Health Politics Different? Annual Review of Political Science 15(1): 287–311.

Conservative, Party (2010). The Conservative Manifesto 2010. Invitation to Join the Government of Britain.

Conservative, Party (2017). The Conservative and Unionist Party Manifesto 2017. Foreward Together: Our Plan for a Stronger Britain and a Prosperous Future.

Corrigan, P.W., ed. (2005). On the Stigma of Mental Illness: Practical Strategies for Research and Social Change. Washington D.C.: American Psychological Association.

Couture, J. and Breux, S. (2017). The differentiated effects of health on political participation. The European Journal of Public Health 27(4): 599–604.

Coyne, J.C., Pepper, C.M., and Flynn, H. (1999). Significance of prior episodes of depression in two patient populations. Journal of consulting and clinical psychology 67(1): 76–81.

Denny, K.J. and Doyle, O.M. (2007). "...Take up thy bed, and vote" Measuring the relationship between voting behaviour and indicators of health. European Journal of Public Health 17(4): 400–401.

Dobson, K.S. and Dozois, D.J.A. (2008a). Introduction: Assessing Risk and Resilience Factors in Models of Depression. In K.S. Dobson and D.J.A. Dozois, eds., Risk Factors in Depression, San Diego and Burling- ton: Academic Press. 1–16.

Dobson, K.S. and Dozois, D.J.A., eds. (2008b). Risk Factors in Depression. San Diego and Burlington: Academic Press.

Downs, A. (1957). An Economic Theory of Democracy. New York: Harper and Row.

Eley, G. (2002). Forging Democracy. The History of the Left in Europe, 1850-2000. New York: Oxford University Press.

Feldman, S. and Steenbergen, M.(2001). Social Welfare Attitudes and the Humanitarian Sensibility. In J.H. Kuklinski, ed., Citizens and Politics. Perspectives from Political

Psychology, Cambridge: Cambridge University Press. 366–400.

Fiorina, M.P. (1981). Retrospective Voting in American National Elections. New Haven, CT: Yale University Press.

Gastil, J. (2000). The Political Beliefs and Orientations of People with Disabilities. Social Science Quarterly 81(2): 588–603.

Gollust, S.E. and Rahn, W.M. (2015). The Bodies Politic: Chronic Health Conditions and Voter Turnout in the 2008 Election. Journal of Health Politics, Policy and Law 40(6): 1115–1155.

Gotlib, I.H. and Joormann, J. (2010). Cognition and Depression: Current Status and Future Directions. Annual Review of Clinical Psychology 6: 285–312.

Greden J.F. (2001). The Burden of Recurrent Depression: Causes, Consequences, and Future Prospects. *Journal of Clinical Psychiatry* 62: 5–9.

Guardian (2013). Anxiety or depression affects nearly one in five UK adults.

Huys, Q.J.M., Daw, N.D., and Dayan, P. (2015). Depression : A Decision-Theoretic Analysis. Annual Review of Neuroscience 38: 1–23.

Jennings, M.K. and Niemi, R.G. (2014). Generation and Politics. A Panel Study of Young Adults and Their Parents. Princeton, NJ: Princeton University Press.

Joormann J. (2009). Cognitive Aspects of Depression. In *Handbook of Depression (second edition)*, eds. I. H. Gotlib and C. L. Hammen. New York: The Guilford Press, pp. 298-321.

Keller M.B. and Boland R.J. (1998). Implications of failing to achieve successful long-term maintenance treatment of recurrent unipolar major depression. *Biological Psychiatry* 44:5: 348–360.

Kessing, L.V. (1998). Recurrence in affective disorder: II. Effect of age and gender. The British Journal of Psychiatry 172(1): 29–34.

Korkeila, K., Suominen, S., Ahvenainen, J., Ojanlatva, A., Rautava, P., Helenius, H., & Koskenvuo, M. (2001). Non-response and related factors in a nation-wide health survey. *European Journal of Epidemiology*, *17*, 991-999.

Labour, P. (2010). The Labour Party Manifesto 2010. A Future Fair for All.

Leahy, R.L. (1997). An investment model of depressive resistance. Journal of Cognitive Psychotherapy 11(1): 3–19.

Leahy, R.L. (2001). Depressive Decision Making: Validation of the Portfolio Theory Model. Journal of Cognitive Psychotherapy 15(4): 341–362.

Leahy, R.L., Tirch, D.D., and Melwani, P.S. (2012). Processes Underlying Depression: Risk Aversion, Emotional Schemas, and Psychological Flexibility. International Journal of Cognitive Therapy 5(4): 362–379.

Lecrubier, Y. (2001). The burden of depression and anxiety in general medicine. Journal of Clinical Psychiatry 62: 4–9.

Maciejewski P.K., Prigerson H.G. and Mazure C.M. (2000). Self-efficacy as a mediator between stressful life events and depressive symptoms. *British Journal of Psychiatry* 176: 373-378.

Mattila, M., Rapeli, L., Wass, H. et al. (2018a). Health and Political Engagement. Abingdon and New York: Routledge.

Mattila, M., Söderlund, P., Wass, H. et al. (2013). Healthy voting: The effect of self-reported health on turnout in 30 countries. Electoral Studies 32(4): 886–891.

Mattila, M., Wass, H., Lahtinen, H. et al. (2018b). Sick leave from work and the voting booth? A register-based study on health and turnout. Acta Politica 53(3): 429–447.

Mondak, J.J. and Halperin, K.D. (2008). A Framework for the Study of Personality and Political Behaviour. British Journal of Political Science 38(2): 335–362.

Nuttall, J. (2006). Psychological socialism: The Labour Party and qualities of mind and character, 1931 to the present. Manchester and New York: Manchester University Press.

Ojeda, C. (2015). Depression and Political Participation. Social Science Quarterly 96(5): 1226–1243.

Ojeda, C. and Pacheco, J. (2017). Health and Voting in Young Adulthood. British Journal of Political Science FirstView.

Ojeda, C. and Slaughter, C. M. (2019). Intersectionality, Depression, and Voter Turnout. Journal of Health Politics, Policy and Law 44(3): 479-504.

Pacheco, J. and Fletcher, J. (2015). Incorporating Health into Studies of Political Behavior: Evidence that Health Impacts Turnout and Partisanship. Political Research Quarterly 68(1): 104–116.

Paulus M.P. and Yu A.J. (2012). Emotion and decision-making: Affect-driven belief systems in anxiety and depression. *Trends in Cognitive Sciences* 16(9): 476–483.

Petrocik, J.R. (1996). Issue Ownership in Presidential Elections, with a 1980 Case Study. American Journal of Political Science 40(3): 825–850.

Pietromonaco, P.R. and Rook, K.S. (1987). Decision Style in Depression : The Contribution of Perceived Risks Versus Benefits. Journal of Personality and Social Psychology 52(2): 399–408.

Radloff L.S. (1977). The CES-D scale: a self-report depression scale for research in the general population. *Journal of Applied Psychological Measurement* 1: 385-401.

Rapeli, L., Mattila, M., and Papageorgiou, A. (2018). Breaking a habit: The impact of health on turnout and party choice. Party Politics.

Reher, S. (2018). Mind this gap, too: political orientations of people with disabilities in Europe. Political Behavior 10(4): 613-635.

Schur, L. and Adya, M. (2013). Sidelined or Mainstreamed? Political Participation and Attitudes of People with Disabilities in the United States. Social Science Quarterly 94(3): 811–839.

Schur, L., Shields, T., Kruse, D. et al. (2002). Enabling Democracy: Disability and Voter Turnout. Political Research Quarterly 55(1): 167–190.

Seeberg, H.B. (2016). How stable is political parties' issue ownership? A cross-time, cross-national analysis. Political Studies.

Smith, G.D. and Dorling, D. (1996). "I'm all right, John": voting patterns and mortality in England and Wales, 1981-92. British Medical Journal 313(7072): 1573–1577.

Söderlund, P. and Rapeli, L. (2015). In sickness and in health. Politics and the Life Sciences 34(1): 28–43.

Solomon, D.A., Keller, M.B., Leon, A.C. et al. (2000). Multiple recurrences of major depressive disorder. American Journal of Psychiatry 157(2): 229–233.

Subramanian, S.V., Hamano, T., Perkins, J.M. et al. (2010). Political Ideology and Health in Japan: A Disaggregated Analysis. Journal of Epidemiology and Community Health 64(9): 838–840.

Subramanian, S.V., Huijts, T., and Perkins, J.M. (2009). Association between political ideology and health in Europe. European Journal of Public Health 19(5): 455–457.

Subramanian, S.V. and Perkins, J.M. (2009). Are republicans healthier than democrats? International Journal of Epidemiology 39(3): 930–931.

Sugar, C.A., Sturm, R., Lee, T.T. et al. (1998). Empirically Defined Health States for Depression from the SF-12. Health Services Research 33(4 Pt 1): 911–928.

Sund, R., Lahtinen, H., Wass, H. et al. (2017a). How depression suppresses turnout? Findings from population-based register data. In Paper prepared for presentation at the ECPR Joint Sessions of Workshops, Nottingham, United Kingdom, 25-30 April.

Sund, R., Lahtinen, H., Wass, H. et al. (2017b). How voter turnout varies between different chronic conditions? A population-based register study. Journal of Epidemiology and Community Health 71(5): 475–479.

Volken, T. (2013). Second-stage non-response in the Swiss health survey: determinants and bias in outcomes. *BMC Public Health*, *13*, 167.

von Helversen, B., Wilke, A., Johnson, T. et al. (2011). Performance Benefits of Depression: Sequential Decision Making in a Healthy Sample and a Clinically Depressed Sample. Journal of Abnormal Psychology 120(4): 962–968.

Ware, J.E., Kosinski, M., and Keller, S.D. (1996). A 12-Item Short-Form Health Survey: Construction of Scales and Preliminary Tests of Reliability and Validity. Medical Care 34(3): 220–233.